ABSTRACT

A compound for a rare-earth bonded magnet includes a rare-earth alloy powder and a binder. The rare-earth alloy powder includes at least about 2 mass % of Ti-containing nanocomposite magnet powder particles with a composition represented by $(Fe_{1-m}T_m)_{100-x-y-z}Q_xR_yM_z$, where T is Co and/or Ni; Q is B with or without C; R is at least one rare-earth element substantially excluding La and Ce; M is at least one metal element selected from Ti, Zr and Hf and always includes Ti; and $10 \le x \le 20$ at%; $6 \le y \le 10$ at%; $0.1 \le z \le 12$ at%; and $0 \le x \le 12$ 0.5. The particles include at least two ferromagnetic crystalline phases, in which hard magnetic phases have an average crystal grain size of about 10 nm to about 200 nm, soft magnetic phases have an average crystal grain size of about 1 nm to about 100 nm, and the average crystal grain size of the soft magnetic phases is smaller than that of the hard magnetic phases.